

1ST AND 2ND COLUMNS		3RD AND 4TH COLUMNS	
BC		B - 1 - 19	
<p>Thermal distillation of phosphorus from phosphates. K. ZIAMANAKIS (J. Chem. Ind. Eng., 1955, 12, 897-903).—The process of production of P from <math>\text{Ca}_3(\text{PO}_4)_2</math> (I) by reduction with C consists of the reactions <math>5(\text{I}) + 40\text{C} \rightarrow 5\text{Ca}_3\text{P}_2 + 40\text{CO}</math>; <math>3(\text{I}) + 5\text{Ca}_3\text{P}_2 \rightarrow 24\text{CaO} + 18\text{P}</math>; the velocity of the reaction rises with temp. to 1600°, above which it falls, owing to recombination of CaO and P to yield <math>\text{Ca}_3\text{P}_2</math>. In the case of natural phosphates the optimum temp. is determined by the m.p. of the mixture. The velocity of the reaction is at all temp. <math>\propto</math> the fineness of milling and the intimacy of mixing of the substrates. R. T.</p>			
<p>ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION</p>			
SOURCE SYNDICATE		SOURCE COMPANY	
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SOURCE NO. 97		SOURCE NO. 98	
SOURCE NO. 99		SOURCE NO. 100	

117 AUG 1961

PROCESSES AND PROPERTIES

CP

The heat of evaporation of water from phosphoric acid solutions of various concentrations at 60°. E. F. Laguard.

lit. J. Appell, Chem. (U. S. S. R.) 11, 1543-7 (in French, 1947) (1958). The compensation method (cf. Veyrille, C. A. 22, 1955) was used to det. the latent heat of evap. of water from 12.65 to 68.35% H<sub>3</sub>PO<sub>4</sub> (the observed heat of evap. varied from 663.8 to 663.8 cal./g.) at 60°. The free energy and the heat of diss. were calc. for the same concns. of H<sub>3</sub>PO<sub>4</sub> from the heat of evap. and a partial vapor pressure of the aq. (cf. C. A. 29, 1309).

A. A. Fadgonov

ASB-SEA - METALLURGICAL LITERATURE CLASSIFICATION

117 AUG 1961

18

CP

The conditions for subliming phosphorus and fluorine from Khibinsk apatite. K. I. Zverovskii and S. Bol's. *J. Applied Chem. (U. S. S. R.)* 11, 1548-64 (in French, 1958) (1958).—In the treatment of Khibinsk apatite contg., after flotation,  $P_2O_5$  39.68,  $CaO$  51.58,  $SiO_2$  1.12,  $Al_2O_3$  1.10,  $Fe_2O_3$  0.85 and  $F_2$  3.01%, with a wood charcoal  $Al_2O_3$  1.62 and volatile substances 12.43%, complete P sublimation was obtained at 1600° within 1 hr. At this temp. the presence of an analytically detectable quantity of  $Ca_3P_2$  was not observed, but at 1700° and 1800° the presence of considerable quantity of  $Ca_3P_2$  was observed. The evolution of  $F_2$  during the reduction of P with wood charcoal in the absence of flux at 1250-1450° was observed, but the amt. was insignificant. However, the yield of  $F_2$  considerably increased (to 81.50%) in the presence of  $SiO_2$ , and in the ratio  $SiO_2/CaO$  = 1.07, at 1450° for 1 hr. The presence of  $SiO_2$  also accelerated the sublimation of P. The action of  $Al_2O_3$  at 1250° on the reduction of P was less effective than that of  $SiO_2$ , at the same temp., but at 1350° P sublimation in the presence of  $Al_2O_3$  was obtained in 1 hr. The presence of  $Al_2O_3$  apparently had no effect on the evolution of  $F_2$ . A. A. P.

ASB SLS METALLURGICAL LITERATURE CLASSIFICATION

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18

*ca*

The present state of the technology of thermal manufacture of phosphoric acid. K. I. Zayverukhin, J. Chem. Ind. (U.S.S.R.) 15, No. 11, 21-27 (1967). H. M. I.

ASS-55.6 METALLURGICAL LITERATURE CLASSIFICATION

Language	Country	Year	Volume	Page	Author	Title	Notes
RUSSIAN	USSR	1967	11	21-27	Zayverukhin, K. I.	Thermal manufacture of phosphoric acid	

CA

2

The system  $P_2O_5-H_2O$ . E. I. Kog.  
 vorkis, Yu. M. Baklanovich and N. A. Barik.  
 (1942) Chem. (U. S. S. R.) 13, 88-91 (in German, 87)  
 (1940).—The system  $P_2O_5-H_2O$  was investigated at 150-  
 300° by measuring the change in pressure in special app.  
 (described).  $HPO_3$  and  $H_2P_2O_7$  were formed by de-  
 hydration of  $H_2P_2O_7$ .  $H_2P_2O_7$  increased to a max. and then  
 decreased with a continuous increase of  $HPO_3$ . A max. of  
 50.3%  $H_2P_2O_7$  was obtained with 81.57%  $P_2O_5$  at 251°;  
 with 79.80%  $P_2O_5$  at 300° the max. of  $H_2P_2O_7$  was 48.90%.  
 A. A. Podgorny

ZAGVOZDKIN, K.: BARILKO, N.

Moscow

Thermics Laboratory, Scientific Research Institute of  
Fertilizers and Insecto-Fungicides (SIC) (-1940-).

"Study of the Conditions of Oxidation of Phosphorous in the  
Caseous Phase by Atmospheric Oxygen."

Zhur. Fiz. Khim., Vol. 14, No. 4, 1940.

COMMON ELEMENTS		RARE EARTH ELEMENTS																																																																							
<p><b>C.A.</b></p> <p>Theory of the condensation of P vapors. K. I. Zaglad- skii. Chem. Ind. (U. S. S. R.) 18, No. 12, 18-23 (1941).—Equations are derived for calcg. the rate of con- densation of P in mixts. of P and inert gases at different P concns. The equations resemble those used in calcg. diffusion. H. M. Leicester</p>	<p>2</p>																																																																								
<b>AIR-SEA METEOROLOGICAL LITERATURE CLASSIFICATION</b>		<b>GEOGRAPHY</b>																																																																							
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Investigation of the conditions for the preparation of fused phosphates. K. I. Zagvozhik and N. A. Barilko. Zhur. Priklad. Khim. (J. Applied Chem.) 20, 502-14 (1947).--The investigation dealt with the effects of temp. and of the nature and amt. of admixts. on the formation of available phosphate in fused products. Materials used

type: (a) fluxation spatite ( $P_2O_5$  38.52,  $CaO$  62.00,  $P_2O_5$  3/15, and insol. residue 1.87%); (b) apatite-nepheline ore ( $P_2O_5$  26.60,  $CaO$  27.53,  $SiO_2$  14.78,  $R_2O_3$  8.04, ( $K_2O$ ,  $Na_2O$ ),  $CaO$  7.60, and  $P_2O_5$  2.23%); (c) phosphorite ( $P_2O_5$  25.0,  $CaO$  39.40,  $H_2O$  12.93,  $CO_2$  4.50,  $MgO$  7.25, and  $P_2O_5$  2.83%); (d) blast-furnace slag ( $CaO$  45.40,  $SiO_2$  31.00,  $Al_2O_3$  6.00,  $Fe_2O_3$  2.10,  $FeO$  0.40, and  $P_2O_5$  0.00%); (e) fine conf. of a at 1800° resulted in no increase of available phosphate in the granulated product; fusion in presence of e resulted in a decrease; available phosphate compared with 2.85% in unfused apatite. There was also no increase in available phosphate after b was fused at 1615-1640° and c at 1843-1850° and then granulated. After fusing a mixt. of 75 parts a and 25 parts f for 15 min. at 1800° the granulated product was found to have 32.8% of total phosphate in available form. The granulated product obtained from the fusion of a mixt. of 80% a with 20% e and 25% f at 1800° had about 100% of the phosphate in available form but fusion of a mixt. of the same compn. at 1800° followed by slow cooling yielded only 30.6% of total phosphate in available form. Optical and x-ray studies showed that the granulated product was

vitreous and the slowly cooled product had a distinct crystal structure and contained mostly calcium fluorapatite. Analysis of the granulated product showed that only about 10% of the  $P_2O_5$  was volatilized. Expts. with b and c showed that here too almost 100% conversion is possible by fusion with e and f. Fusion of 80 parts of b or c with 20 parts d and 10 parts e yielded almost 100% available phosphate in the granulated product; the upper temp. fusion temp. is 1820-1840°. Nearly 100% available phosphate was obtained in the granulated fusion product of 70 parts c with 10 parts e and 20 parts of serpentine (90%  $SiO_2$  40%  $MgO$ ).

B. I. Kamich





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<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p>Minerals of the Yellow River placers. A. L. ZACHARSKY. (Compt. rend. Acad. Sci. U.R.S.S., 1936, 24, 51-53).—The mineralogical composition of black sands taken from the pits sunk in the valley of the Yellow River (Shan district) is described. The most interesting rare minerals found are monazite, zircon, cassiterite, and topaz. A. J. M.</p> </div>			
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The genetic peculiarities of the Mn ores of the Botomskan deposit. A. I. Sazonov, *Doklady Akad. Nauk S. S. S. R.* 41, 226-31 (1943); *Geol. zap. akad. sci. U. S. S. R.* 41, 216-18 (1943) (in Russian).—The western part of the deposit is characterized as mainly primary sedimentary Mn oxides with transition, in the eastern zone, of these ores into carbonate and siliceous (opai) carbonate ores (aside from some areas of redeposited oxide ores). The amts. of Fe and P in the ores increased, resp., from 2% to 6% and from 0.13% to 0.28% when the Mn content fell from 41% to 13%. A previously suggested hypothesis is that the deposit was formed by oxidation of carbonate ores. J. W. Perry

ZAGYANSKIY, A. L.

PA 43/49164

USSR/Geological Prospecting  
Iron Ore

Mar 49

"Direction of Geological Research Work on KMA  
(Karak Magnetic Anomaly) Territory," A. L.  
Zagyanskiy, Cand Geol-Mining Sci, 3 pp

"Gor Zhur" No 3

It has been shown recently that Devonian deposits  
are comparatively extensive in KMA territory.  
They covered (until most recent transgressions)  
the main part of the rich iron concentrations of  
Staroy Oskol Bayon. However, this does not prove  
that ~~the~~ ~~main~~ ~~part~~ ~~of~~ ~~the~~ ~~rich~~ ~~iron~~ ~~concentrations~~ ~~of~~  
of Devonian age, ~~the~~ ~~main~~ ~~part~~ ~~of~~ ~~the~~ ~~rich~~ ~~iron~~ ~~concentrations~~ ~~of~~  
ores north of Staroy Oskol Bayon, in particular  
in Shchigry and Tim rayons.

43/49164

184T94

USSR/Minerals - Manganese, Ores 11 Feb 51

"On Peculiarities in the Behavior of Carbonate Manganese Ores in the Blast Furnace Process," A. L. Zagynskiy

"Dok Ak Nauk SSSR" Vol LXVI, No 5, pp 721, 722

Low decompn temp (4000) of manganese carbonates and reduced mp (1,050-1,150) of carbonate ores accelerate formation of slags with increased amt of manganese oxide. Important factor in improving tech of blast furnace process. Application of ores permits increase in blast intensity and makes possible considerable decrease in consumption of limestone.

184T94

USSR/Minerals - Manganese, Ores (Contd) 11 Feb 51

Alkali aluminum silicate or glauconite, occurring in some carbonate ores also has considerable effect on initial slag formation. Submitted by Acad I. F. Bardin.

184T94

ZAGYANSKIY, A. L.

USSR/Metals - Ferroalloys, Manufacture, 11 Mar 52  
Processes

"Peculiarities of Slagging in Making Phosphorus  
Ferromanganese," A. L. Zagayanskiy

"Dok Ak Nauk SSSR" Vol LXXXIII, No 2, pp 265-267

Studies compn and properties of slags in making  
Fe-Mn-P alloy in blast furnace. Concludes that,  
under ordinary temp conditions of blast furnace  
process (at Si content of 0.4-0.7%), CaO/SiO<sub>2</sub> ratio  
in slag must be at 1.5-1.55. Such basicity se-  
cures proper reduction of Mn and P, while slag pos-  
sesses sufficient fluidity. Discusses deviation  
from optimum compn. Submitted by Acad I. P. Bardin  
18 Jan 52.

214767

ZAGYANSKIY, A.L.

Omec

Journal of the Iron and Steel  
Institute  
Vol. 176 Part 3  
Mar. 1954  
Production of Steel

Some Characteristic Factors of Deoxidation Processes in the Production of Phosphorus Steels. A. L. Zagyanakii. (Doklady Akademi Nauk S.S.R., 1953, 91, (6), 1369-1372). [In Russian]. Some theoretical problems in the deoxidation of liquid steels, particularly those connected with the use of ferromanganese-phosphorus, are discussed. The excellent deoxidizing properties of phosphorus combined with a better removal of non-metallic inclusions are stressed. It is also postulated that during deoxidation by manganese an isomorphic mixture of manganese and ferrous oxides is formed:  $(mMn, nFe)O$  or  $(mFe, nMn)O$ , and therefore during dephosphorization the phosphates  $(FeMn)_3(PO_4)_2$  and  $(MnFe)_3(PO_4)_2$  are formed, which, being unstable and of a low specific gravity, float easily and enter the slag as the respective calcium phosphates.—v. a.

USSR/ Minerals - Geochemistry

Card 1/1 Pub. 22 - 26/40

Authors : Zagvanskiy, A. L.

Title : The geochemical characteristics of Zn distribution in Fe-ores

Periodical : Dok. AN SSSR 99/2, 285-287, Nov 11, 1954

Abstract : Several ore samples from western Siberia and Ural sources were investigated to determine the Zn distribution in these areas. The separation of the Zn bound with sulfides, and the determination of its content were carried out by dissolving the ore samples in a 2% solution of nitric acid at 20°. The results of the analytical data of Zn-containing iron ores, are tabulated. Ten references: 7-USSR and 1-USA (1934-1947) are cited.

Institution : The I.V. Stalin Steel Institute, Moscow

Presented by : Academician D. I. Shcherbakov, June 12, 1954



ZAGYANSKIY A. I.

[illegible]

ZAGYANSKIY, A.L.

Special features of the processes of cobalt precipitation by  
xanthates. Zhur. prikl. khim. 38 no.4:942-945 Ap '65.  
(MIRA 18:6)

ZAGYANSKIY, A.L.

Settling of cobalt by potassium xanthate. TSvet. nat. 37 no.6:  
25-29 Je '64. (MISA 17:9)

ZAGHEANSKI, A.L. [Zagyangskiy, A.L.]

Geochemistry of germanium. *Analele geol geogr* 14 no.4:30-33 O-D '62. .

ZAGYANSKIY, A.L.

Geochemistry of germanium. Dokl. AN SSSR 143 no.6:1435-1437  
Ap '62. (IHRA 15:4)

1. Institut metallurgii im. A.A.Baykova AN SSSR. Predstavleno  
akademikom D.I.Shcherbakovym.  
(Geochemistry) (Germanium)

25

ZADYANSKIY, A.L.

Sequence of crystallization of the nonmetallic oxide and sulfide  
inclusions in steel. Trudy inst.met. no.5:43-49 '60. (MIRA 13:6)  
(Steel--Metallurgy)  
(Nonmetallic minerals)

ZAGYANSKIY, I. L.

ON THE PROBLEM OF PREPARING MONOCRYSTALS OF BORON CARBIDE. I. L. ZAGYANSKIY, G. V. SAMANOV, and N. V. POPOVA. *Doklady Akad. Nauk S.S.S.R.* 74, 723-4 (1950) Oct. 1. (In Russian)

Boron carbide  $B_4C$ , one of the hardest substances in existence (second only to diamond) and a very brittle one, has been known in minute crystals only. Using a mixture of boron oxide and carbon black, rather large crystals of about  $10 \times 10 \times 0.5$  mm were obtained at the electrode of a resistance furnace, the heating being followed by a very prolonged

cooling. It was essential to provide hollow recesses in the vicinity of the electrodes. It is probable that in the hollow between the electrode and the crust of finely crystallized carbide, a dissociation of  $B_4C$  into boron gas and a liquid rich in carbon took place; during the cooling,  $B_4C$  formed from the two phases and slowly crystallized. The crystals are dark and opaque.



Preparation of  
Inorganic Substances

ZAGYANSKIY, I. L.

Fuels  
Chem  
(2)

V Oxidizability of boron nitride. I. L. Zhelevsky and G. V. Samsonov  
(J. appl. Chem. USSR, 1952, 25, 557-558).—BN is oxidized  
considerably when heated in air at 800 and 900°; when heated for  
2 hr. at 1000 or 1100° it is almost completely converted into B<sub>2</sub>O<sub>3</sub>.  
In vacuum at these temp. there is first a loss of B<sub>2</sub>O<sub>3</sub> impurity and  
then no further change.

R. C. MURRAY

6-4-54  
9/10

ZAGYANSKIY, I. L.

9 3

The oxidizability of boron nitride. I. L. Zagvanskiy  
and G. V. Sazonov. J. Appl. Chem. U.S.S.R. 25,  
629-30 (1952) (Engl. translation); Zhur. Priklad. Khim.  
25, 667-8 (1952). —BN is actively oxidized in air 800-900°;  
after 2 hrs. at 1000-1100°, the degree of oxidation to  $B_2O_3$   
is 66-67%.  
Bernard Rubin

Заг. А.  
ЗАЙУ, А.

Arctic icebreaker fleet. Mor. flot 17 no.12:6 D '57. (MIRA 11:1)

1. Nachal'nik otдела Upravleniya po zakazam i nablyudeniyu za stroi-  
tel'stvom flota Ministerstva morskogo flota.  
(Arctic regions--Navigation) (Ice-breaking vessels)

ZAOTU, A.

The "Ob", a diesel-electric ship. Mor.flot.16 no.3:15-19 M: '56.  
(Merchant ships, Russian) (Ob (Ship)) (MLRA 9:7)

ZAQYU, A.

~~\_\_\_\_\_~~  
The icebreaker "Kapitan Belousov." Mor. flot 15 no. 7:15-18  
J1 '55. (MLBA 8:9)  
(Ice-breaking vessels) (Finland--Shipbuilding)

BVADZE, V.T.; GABASHVILI, T.N.; ZAGYU, T.N.

Petrological and mineralogical characteristics of Poladauri  
iron ore deposits. Geol.sbor.[Kavk.] no.1:10-23 '59.

(Georgia--Iron ores)

(MIRA 13:1)

ZAGYU, T. N.

15-57-8-11219

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8,  
pp 151-152 (USSR)

AUTHOR: Zagyu, T. N.

TITLE: Formation of One of the Iron Ore Deposits of Georgia  
(K voprosu formirovaniya odnogo iz zhelezcrudnykh  
mestorozhdeniy Gruzii)

PERIODICAL: Tr. Gruz. politekhn. in-ta, 1956, Nr 3 (44), pp 88-93

ABSTRACT: In the area of the deposit, the rigid crystalline  
substratum is covered by thin-vein deposits of Lias  
stone, volcanic formations of the Bajocian and a  
thick stratum of volcanic formations and limestones  
of the Middle and Upper Cretaceous period. The ore  
substances are located chiefly in the axial part and  
in the northern limb of the sloping, latitudinal  
anticline and are correlated chiefly with the tuff-  
aceous breccia, more rarely with the tuff, and, as

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15-57-8-11219

Formation of One of the Iron Ore Deposits (Cont.)

the exception, with the blanket deposits of the albitophyres of the Turonian-Cognacian. The ore substances have an irregular lenticular form; on the whole, they lie concordant with the host rock, rarely occupying an intersecting position. They consist of advancing nests of mixed ore and sections of more or less thick dissemination which gradually passes into unmineralized rock. The basic ore mineral is hematite, accompanied by pyrite and a very small amount of chalcopyrite. Sometimes magnetite is present. Mineralization is accompanied by quartz, chlorite, calcite, siderite, garnet, epidote, actinolite, plagioclase, and sericite. The mineral composition of the ores and the changed enclosing rock distinctly indicate that they are the result of a single process. The formation of ores occurred by metasomatic shifting of rock-forming minerals as a result of their interaction with hydrothermal solutions penetrating into the rock along pre-ore tectonic fissures.

Card 2/2

A. B. Belyavskiy



ZAGYU, T.N.

Mineral composition of iron-manganese ores in the Tsedind  
deposit. Trudy GPI [Gruz.] no.2:95-103 '63.

(MIRA 17:9)

ZAGYVAI, Iure

Possibilities of applying mathematical methods in the silicate industry and their obstacles. Epitoanyag 16 no.10:391-397 O.'64.

DOLLE, Attila; ZAGYVAI, Istvan

Changes in the chemical composition of fur leathers during the drenching process. For tipo 14 no. 2:58-59 Mr '64.

1. Pannonia Fur Factory, Budapest (for Dolle). 2. Budapest Technical University (for Zagyvai).

ZAGYVAY, Istvan; NEMETH, Laszlone; HANGOS, Istvan

Some questions of preparing colloidal graphite. I. Crushing of graphite. Nagy kem folyoir 66 no.9:338-342 S '60.

1. Budpaesti Muszaki Egyetem Gyakorlati Kemiai Tanszeke es Tavkozlesi Kutato Intezet.

ZAGYVAI, Istvan; WEMETH, Laszlone; HANGOS, Istvan

Some questions relating to the preparation of colloid  
graphite. II. Preparation of graphite suspensions.  
Magy kem folyoir 67 no.7:298-301 J1 '61.

1. Tavkozlesi Kutato Intezet, Budapest.

DOLLE, Attila; ZAGYVAI, Istvan; KELLER, Maria

Changes in the chemical composition of pelts during their steeping.  
Pt. 2. Ber cipe 14, no.4:117-119 '64.

1. Pannonia Fur Factory (for Dolle). 2. Budapest Technical University  
(for Zagyvai). 3. National Institute of Rheumatism and Balneotherapy  
(for Keller).

ZAGZIDA, V.B.; TIKHONOVA, L.A.; SOKOLOV, V.I.; MARANTS, A.G.; RYBNIKOV, V.A.;  
KAZAKEVICH, S.S.; SARMIN, A.P.; GAVRILOV, A.I.; NOVIKOV, A.N.;  
MECHPORENKO, M.A.; KAL'MOVA, Ye.A.; FEDOROV, G.A., redaktor;  
FEL'DGANDLER, G.G., redaktor; ROZHEN'SVETG, Ya.D., redaktor izdatel'stva;  
MIKHAYLOVA, V.V., tekhnicheskiy redaktor

[Handbook on refractory elements and materials] Spravochnik na  
ogneupornye izdeliya, materialy i spr'e. Sostavlenn po gosudarstven-  
nym standartam i tekhnicheskim usloviyam. Moskva, Gos. nauchno-  
tekhn. izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1956. 195 p.  
(MLRA 10:2)

1. Russia (1923)- U.S.S.R.) Ministerstvo chernoy metallurgii.
2. Leningradskiy institut ogneporov. (for Zagzhda, Tikhonova, Sokolov,  
Marants, Rybnikov, Kazakevich, Sarmin, Gavrilov, Novikov, Mechporenko,  
Kal'mova.

(Refractory materials)

ZAH, M.

"Railroad line between Belgrade and Bar; comparative calculations for steam and electrical traction." p. 1. (Zeleznice, Vol. 10, no. 1, Jan. 1954.. Beograd.)

SO: Monthly List of East European Accessions, Vol. 3, no. 6, Library of Congress, June 1954.  
Uncl.



ZAH, M.

"Some problems concerning the supply of Yugoslav railroads with materials and equipment."

p. 25 (Zeleznice) Vol. 14, no. 1, Jan. 1958  
Belgrade, Yugoslavia

SO: Monthly Index of East European Accessions: (EEAI) LC. Vol. 7, no. 4,  
April 1958

ZAH, Miroslav, inz.

Are there possibilities of applying atomic energy in railroad traction.  
Zeleznice Jug 20 no.6:38-39 Je '64.

ZAHACINSCHI, Maria, dr.; HUCUR, Paula, dr.; VASILESCU, I., dr.

Familial cardiomyopathy. (Ap. opos of 3 clinical cases). Med.  
intern. (Bucur.) 17 no.4:463-466 Ap '65.

1. Lucrare efectuata in Spitalul nr. 1, Craiova.

ZAHAGINSCHI, Maria, dr.; SHIRLEAZA, V., dr.; PLETER, V., dr.; VASILESCU, I., dr.

Three cases of the Pickwick syndrome. Med. intern. (Bucur.) 16  
no.11:1397-1400 N '64

1. Lucrare efectuata in Sectia medicala a Spitalului nr.1,  
Craiova.

ZAHACINSCHI, Maria, dr.; VASILESCU, I. dr.; ROSCULESCU, I. dr.

Endomyocardial fibrosis with the clinical and radiological .....  
aspects of constrictive calcifying pericarditis. Med. intern.  
(Bucur.) 16 no.7:881-884 J1'64

1. Lucrare efectuata la Spitalul Nr.1, Craiova.

ZAHACINSCHI, N.

SURNAME, Given Names

Country: Rumania

Academic Degrees:

Affiliation: -not given-

Source: Bucharest, Farmacia, Vol IX, No 9, Sep 1961, pp 563-571.

Data: "On the Extractive Solutions Included in the 7th Edition of the  
Rumanian Pharmacopoeia and Suggestions for the Next Pharmacopoeia."

Authors:

CRASNARU, P., -Pharmacist.-

ZAHACINSCHI, N., -Pharmacist.-

GPO 981643

- 2/3

ZAHACZEWSKI, R.

(GAZ, WODA I TECHNIKA SANITARNA, Vol. 28, No. 3, Mar. 1954, Warszawa, Poland)  
"Decrease coke consumption in central heating boilers." p. 66

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, L.C., Vol. 3, No. 4, APRIL 1954



ZAHACZEWSKI, Roman, dr inz.; KOCUREK, Joachim

Directives for the selection of the pipeline diameter for the transportation of hydraulic mixtures of water and coal of 0-2mm grains. Przegl gorn 20 no.3:Supplement: Biul glow inst gorn 14 no.1:1-5 '64.

ZAHACZEWSKI, Roman, dr inz.; ROGOWSKI, Tadeusz, mgr inz.; KOCUREK, Joachim;  
OLECH, Tadeusz.

Testing hydraulic gradients for water and coal mixtures, considering  
the curve of the graininess. Przegl gorn 20 no.3; Supplement: Biul  
glow inst gorn 14 no.1:7-9 '64.

ZAHACZEWSKI, Roman, dr inz.

Application of the theory of similitude to flow of solids  
and liquids in pipelines. Przegl gorn 20 no.10:410-413  
O '63.

ZAHACZEWSKI, Roman, dr. inz.; MILLER, Mieczyslaw, mgr inz.

Hydraulic coal transportation from mine X to electric plant K.  
Przeł gorn 20 no.10:Supplement:Biul glow inst gorn 14 no.2:  
18-21 '63.

R/008/60/000/006/008/COI  
A231/A126

10-1500

26096

AUTHORS: Dumitrescu, L.; Jakab, I.; Procopovici, E.; Zaharescu, A. X

TITLE: Some problems of experimental investigations of high-speed aerodynamics in the shock tube

PERIODICAL: Studii și cercetări de mecanică aplicată, no. 6, 1960, 1,599 - 1,608

TEXT: The article briefly reviews the shock tube of the Institutul de mecanică aplicată "Traian Vuia" (Institute of Applied Mechanics) of the Academy RFR (Rumanian Academy). The institute conducts research in connection with the accomplishment and exploitation of shock tubes since 1956. The requirements for the construction of the shock tube and measuring instruments were based on the idea of using the shock tube for the production of a high-speed quasi-stationary air stream. The operating principle and the operational results have already been described in Ref. 6 [L. Dumitrescu: Tubul de șoc și aplicațiile sale. Studii și cercetări de mecanică aplicată, VII, 1 (1956)] and Ref. 2 [L. Dumitrescu: Tubul de șoc pentru cercetări de aerodinamică. Studii și cercetări de mecanică aplicată, X, 1 (1959)]. Behind the shock wave propagating along the tube there are produced two quasi-stationary flow fields of two different Mach Number M and

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Some problems of experimental investigations of...

R/008/60/000/006/008/008  
A231/A126

M<sub>2</sub>. The tube has a total length of 11 m consisting of twelve 840 mm and two 450 mm stumps. Their position can be modified to realize every configuration of the tube. The sectional dimension of the tube is 300 x 190 mm. It is provided with a vacuum pump of 1.7 kw and a residual vacuum of 0.3 mm Hg, and a 0.7 kw air compressor supplying 7 atm. These installations supply a maximum vacuum of 2 mm Hg and a maximum pressure of 6 atm, corresponding to a maximum theoretical Mach Number of  $M = 1.45$  and  $M_2 = 5.37$ . The main problem consists in an adequate measuring of the aerodynamic parameter. The shock tube was designed to guarantee an average operating time of 5 - 10 milliseconds. In order to use the shock tube for qualitative research, it became necessary to work out methods of measuring the aerodynamic parameters with a short response time which should represent a fraction of the above-mentioned minimum operation time. In order to accomplish the measurement of a great number of physical parameters, the shock tube was equipped with the following installations: a) Apparatus for measuring the initial static parameters of the air in the shock tube; b) control relay with controllable retarding for the connection of the measuring instruments and spot illuminating devices; c) installation for measuring the propagation velocity along the shock tube; d) installation for measuring the aerodynamic pressure distribution in the shock tube and on the model; e) aerodynamic scale for measuring the

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26096

R/008/60/000/006/008/003

A231/A126

Some problems of experimental investigations of....

overall aerodynamic forces on the model; and f) installation for measuring the heat transfer on the model surface. At present, the last two problems were not yet studied. The shock tube was also equipped with an installation measuring the propagation velocity of the shock wave serving as a reference value. This installation was described in Ref. 3 [I. Jakab, A. Zaharescu and L. Dumitrescu: Metodă pentru măsurarea vitezei de propagare a undelor de șoc. Studii și cercetări de mecanică aplicată, XII, 1 (1961), being in publication]. There are 8 figures and 13 references: 6 Soviet-bloc and 7 non-Soviet-bloc. The last five references to the English-language publications read as follows: Ref. 7: Ch.E. Wittoliff, M. R. Wilson and A. Hertzberg, The tailored interface shock tunnel. Journal of the Aero-Space Science, 26, 4, April (1959); Ref. 10: J. Gordon Hall, Shock tubes. Institute of Aerophysics University of Toronto, UTIA Review, 12. Part. II, May (1958); Ref. 11: B.D. Henshall, On some aspects of the use of shock tubes for aerodynamic research. R. & M. 3044, London (1957); Ref. 12: B.D. Henshall, Some notes on the use of resistance thermometers for the measurement of heat transfer rates in shock tubes. A.R.C. Techn. Report C.F. 408, London (1959); Ref. 13: B.D. Henshall, Experimental results from the N.P.L. hypersonic shock tunnel. N.P.L. (Aero) 372, February (1959).

SUBMITTED: May 12, 1960

Card 3/3

ZAHALKA, B.

"Cretaceous Territory in the Environs of Rychinov nad Kneznou", P. 45,  
(SBORNIK. ODDIL GEOLOGICKY, Vol. 20, 1953, Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 3,  
Mar 1955, Uncl.



ZAHALKA, B.

Tectonic sketch of the Cretaceous of eastern Bohemia. p.359.

SBORMIK, ODDIL GEOLOGICKY, Prague, Vol. 21, 1954 (published 1955)

SO: Monthly List of East European Accessions, (BEAL), LC, Vol. 5, No. 5 June 1956, Uncl.

ZAHALKA, B.

"Contribution to the Stratigraphy of Cretaceous Formations in the Dnieper River Basin." p. 73  
(KARTO-RAFIKY PREHELED, Vol. 29, No. 2, 1954)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

ZAHAIKA, B.

Deep borings in Roudnice nad Labem. p. 251.  
VESTNIK, Prague, Vol. 29, no. 6, 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

ZAHALKA, B.

A contribution to the tectonics of the Cretaceous in the vicinity of Roudnice nad Labem.  
p. 255. (Vestník, Praha. Vol 31, no. 6, 1956)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

ZAMALKA, B.

Occurrence of a Madusa-like form in the Cretaceous of the Beskids.

p. 294 (Vestník( Vol 32. no. 4, 1957. Praha, Czechoslovakia.

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 1, Jan 1958

ZAHALKA, J.

Into the second year.

p. 1 (Jerna Mechanika a Optika. Vol. 2, no. 1, Feb. 1957. Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,  
February 1958

CZECHOSLOVAKIA / Farm Animals. General Problems

Q

Abs Jour: Ref Zhur-Biol., No 5, 1958, 21447

Author : Zahalka Jan

Inst :

Title : Pasture Management of Young Purebred Bulls (Past-  
bishchnoye soderzhaniye molodykh plemennykh bychkov)

Orig Pub: Nas chov, 1957, No 10, 271-273

Abstract: The article deals with the importance of pasture  
for the development of the organs of young bulls.  
It contains recommendations for preparing the  
groups of young bulls for pasturing, preventing ex-  
cessive exercise, and for individual grazing on a  
tether.

Card 1/1

ZAHALKA, J.

Oil as fuel for rotary furnaces in clinker production; experiences of the cement plant in Cizkovice. p. 247.

STAVIVO. (Ministerstvo stavebnictvi) Praha, Czechoslovakia. Vol. 37, no. 8, Aug. 1959.

Monthly list of East European Accessions (EEAI), IC, Vol. 8, no. 10, Oct. 1959. Uncl.



ZAHALKA, V.

"More participation of technicians needed in analyzing the economy of enterprises."

NOVA TECHNIKA, Praha, Czechoslovakia, Vol. 7, July 1959.

Monthly List of East European Accessions (MEAI), LC, Vol. 8, No. 9, September 1959.

Unclassified.

ZAHALKOVA, A.

ZAHALKOVA, A.

~~\*\*\*\*\*~~  
Tuberculin tests in school children. Pediat. listy 5:5, Sept.-  
Oct. 50. p. 290-3

1. Of the Institute of Social Medicine of Charles University  
(Head—Prof. V. Prosek, M. D.) and of the Health Branch of UNV  
in Prague (Head—D. J. Sommer, M. D.).

CML 20, 3, March 1951

JENICKOVA, Jarmila; ZAHALKOVA, Anna

Results of vaccination against tuberculosis in Prague during  
1947-57. Cesk.pediat. 14 no.12:1096-1105 D '59.

1. Ustav narodniho zdravi ONV Praha, reditel dr. J. Sosky.  
Ustav pro organizaci zdravotnictvi UK, prednosta prof.dr. V.Prosek.  
(BCG VACCINATION statist.)

ZAHALKOVA, A.; VAVROVA, L.

Role of tuberculosis in child mortality and morbidity. *Pediat. listy*,  
Praha 7 no. 3:153-157 May-June 1952. (CLML 22:4)

1. Of the Institute of Social Medicine (Head--Prof. V. Prosek, M. D.)  
of Charles University, Prague.

**ZAMALKOVA, M.; HOLUB, K.**

Our method for the cooperation between school physicians and ophthalmologists in detecting strabismus. Cesk. pediat. 17 no.4:372-375  
Ap '62.

1. Detske oddeleni GUMZ Zdar nad Sazavou, prednosta MUDr. J. Zemanek  
Ocni oddeleni GUMZ Zdar nad Sazavou, prednosta MUDr. K. Holub.

(STRABISMUS prev & control) (SCHOOL HEALTH)

ZAHAIKOVA-PAVLOVA, A.; ZIMA, J.

Sleep therapy of stammering. *Pediat. listy, Praha* 8 no.1:31-32 Feb 1953. (CIML 24:3)

1. Of the Logopedic Institute of UNV-Prague (Head--Prof. M. Sovak, M. D.) and of the Sanatorium for Adolescents with speech disorders.

VEZA, S., lector; ZAHAN, E., prof. (Cluj)

The teachers of geography getting ready for the new scholar year.  
Natura Geografie 13 no.4:49-53 JI-Ag '61.

1. Universitatea, Cluj (for Vexa)

MOGA, A., PITEA, P.; MISSITS, P.; UZA, Gh.; ZAHAN, M.; CUCUIANU, M.

The influence of salt-free diet and diuretic therapy on serum lipids in arteriosclerosis. Stud. cercet. med. intern. 6 no.3: 269-277 '65.



ZAHAN, Tr., ing.

Compensation of a polygonal network. Rev geodesie 7 no.2:  
3-20 '63.

**ZAHARCENKO, Vasil**

More than a quarter of a century in the jungle. Pt.2. St si  
Teh Buc 14 no.12:30-31 D'62.

1. Redactor-sef al Revistei "Tehnika Molodeji".

PAUNESCU, C.; GEORGESCU, M.; ILIESCU, I.; ZAHAREANU, F.; MAYO, B.; STANGIU, St.;  
IACRITIANU, V.; UDRESCU, St.; CIOARA, N.

Tonsillar disease and rheumatism in children; investigation in the  
vicinity of Grivita Rosie (1951-1955). Probl. reumat., Buchar. no.5:  
93-98 1958.

(RHEUMATISM, etiol. & pathogen.  
relation to tonsillitis, in child., incidence in community  
near Bucharest)

(TONSILLITIS, complications  
rheum. in child., incidence in community near Bucharest)

ZAHARENKO, N.V., TOLSTUKHINA, F.S., BARTENEV, G.M.

Flow of rubberlike polymers and of their mixtures with carbon blacks. Koll. zhur. 22 no.2:168-175 Mr-Apr '60. (MIRA 13:8)

1. Nauchno-issledovatel'skiy institut resnivoy promyshlennosti, Moskva.

(Carbon black) (Polymers) (Propene)

JAKAB, I.; ZAHARESCU, A.; RUGINA, I.

Six channels of direct current amplifier for tensiometric measurements. Studii cerc mec apl 14 no. 6: 1485-1490 '63.

85619

10.9230

9.6180 (3002, 3203)

R/008/60/000/001/009/009

A125/A026

AUTHOR: Zaharescu, A.

TITLE: Static Tensiometer With Switching to 15 Measuring Points

PERIODICAL: Studii si Cercetări de Mecanică Aplicată, 1960, No. 1, pp. 297-301

TEXT: The Measurement Engineering Section of the Institutul de mecanică aplicată (Institute of Applied Mechanics) designed and built a sensitive-static tensiometer, able to measure deformations in 15 points with resistive transducers. It consists of a measuring bridge, an oscillator for feeding the bridge, and a zero indicator, comprising an amplifier and a phase-sensitive detector. The multistage bridge consists of two Wheatstone bridges connected in series. The switching scheme of the transducers is selected in such a way that a " $\Delta r$ " variation of the contact resistance of the switch is reduced to  $\frac{(\Delta r)^2}{2 \cdot r}$ , ( $r =$

$R_{44} = R_{45}$ ). The bridge is calibrated for a transducer-constant of  $K = 2$ . The equilibrium elements of the bridge are a potentiometer with a drum  $R_6$  and switches  $K_1$  and  $K_2$ . The resistances of the bridge are measured with a tolerance of smaller than 0.1 % and are inductively wound. The  $R_1, R_2, R_3, R_{37}, R_{33}, R_{39}$  resistances are thermally compensated up to a relative variation of the resistances.

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A125/A026

# Static Tensiometer With Switching to 15 Measuring Points

tance of less than  $2 \cdot 10^{-6}/^{\circ}\text{C}$ . The oscillator is accomplished on a cathode repeater with a double T selective circuit. The frequency of the general voltage is 800 cps. The amplification can be varied in two stages. The phase detector requires small consumption from the oscillator. The  $R_{50}$  and  $R_{51}$  resistances guarantee a good stability of the zero point, and together with  $R_{54}$  and  $R_{58}$  they give a good sensitivity. The rectifier, installed in the same casing, is provided with 6 x 4 STR 150/40 x tubes for 150 v and 6R80P tubes for signaling the operation. The value of the measured  $\epsilon$  distortion has a lower limit of  $2 \cdot 10^{-6}$  and an upper limit of  $\pm 10^{-2}$ . The bridge is calibrated for a 200 ohm transducer, but other transducers ranging from 100 to 600 ohm, supplying an additional error of 1 %, can also be used. The calibrating error of the switches for two active transducers is smaller than  $\epsilon = \pm 10^{-6}$  for one stage of the  $K_1$  switch and  $\epsilon = \pm 5 \cdot 10^{-6}$  for one stage of the  $K_2$  switch. The displacement of the zero point is  $\epsilon = 3 \cdot 10^{-6}$  for one hour of operation. No additional errors are obtained at the voltage variation of the network between + 10 and - 20 %. The apparatus allows the observation by an oscillograph of dynamic stresses, containing important harmonics, smaller than 100 cps. There are 1 figure and 1 photograph.

SUBMITTED: September 19, 1959

Card 2/2

JAKAB, I.; RUGINA, I.; ZAHARESCU, A.

Automation of aspect control of ball bearings. Studii cerc  
mec apl 14 no.5:1163-1177 '63.



BALLY, R.J., cand. in stiinte tehnice, ing.; ZAHARESCU, E., cand.  
in stiinte tehnice

Studies of the hydrotechnical earth structures necessary  
for the development of the fluvial zone of the Danube Delta.  
Meteorologia hidrol gosp 6 no.3:192-195 '61.

1. Membru al Colegiului de redactie, "Meteorologia,  
hidrologia si gospodaria apelor" (for Bally).

ZAHARESCU, E., cand.st.teh.ing.

Studies on infiltrations in the embanked area of the Danube Delta.  
Meteorologia hidrol gosp 6 no.4:269-273 '61.

ZAHARESCU, E., ing.; IONESCU, I., ing.

Study on the use of stabilized soil in the work of hydrotechnical constructions and hydroimprovement work. Hidrotehnica 8 no.10:361-371 0 '63.

IONESCU, I.; ZAHARESCU, E.; INCULESCU, M.

Study of the mineral binding materials for soil stabilization.  
Studii geotehn fund constr hidro 7:287-340 '64.

ZAHARESCU, B.

"I. Stalin on the objects of political economy." p. 8. (STINTA SI CULTURA,  
No. 1, Jan. 1953. Bucuresti.)

SD: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress  
August, 1953, Uncl.

ZAHARESCU, E.

Avoidance of the singular point in the calculation of the carrying capacity of rigid foundations. p. 188.

(HIDROTECHNICA. Vol. 2, no. 4, July/Aug. 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 2, No. 12, Dec. 1957  
Uncl.

ZAHARESCU, E.

About the Avoidance of the Singular Point in Calculating Bearing Capacity  
of Rigid Foundations. Hidrotehnica (Hydrotechnology), #4:198:Aug 57

ZAHARESCU, E.

TECHNOLOGY

Periodicals: HIROTEHNICA. Vol. 3, no. 8, Aug. 1958

ZAHARESCU, E. Experimental studies on the methods of breaking the earth mass  
below rigid foundations. p. 318

Monthly List of East European Accessions (MEAI) LC, Vol. 8, No. 2,  
February 1959, Unclass.



ZAMRISCU, I., prof. (Cine a-le-Arges)

Use of sand case in teaching geography. Natura Geografica 13 no.3:76-77 My-Je '61.

Country	: RUMANIA	H
Category	:	
Abs. Jour	: 44402	
Author	: Oprea, Gh.; Apostol, V.; Finkel, M.;	
Institut.	: Zaharescu, I.	
Title	: Production of Sulfate Cellulose with a High Yield from Coniferous Woody Tissue in Rumania.	
Orig. Pub.	: Celul. si hirtie, 1958, 7, No 9, 364-374	
Abstract	: The possibility was established of producing sulfate cellulose with a high yield (55-65%). Technical-economic data are given on advantages of using this product. authors' resume.	

Card: 1/1

VASILESCU, V., conf.; CUPSA, Viorica, dr.; ZAHARESCU, Stela, dr.

Some aspects of the biology of hepatic regeneration. Med. intern.  
(Bucur.) 16 no.8:917-926 Ag '64.

1. Lucrare efectuata la Catedra de biofizica Institutul medico-  
farmaceutic, Bucuresti.

ENESCU, I., acad.; ZAHAIJESCU, T. —

The action of Adelphan on haemodynamic factors in hypertonic disease. Rumanian M. Rev. 3 no.3:52-56 J1-II '59.

1. Medical Clinic of the Medicopharmaceutical Institute in Jassy.  
(HYPERTENSION, therapy)  
(RESERPINE, therapy)  
(HYDRAZINES, therapy)

FRANCHE, M., Conf.; BRAUNER, E., dr.; ANDRONOVICI, Gh., dr.; MINUL, V., dr.;  
BLINDU, P., dr.; FELER, H., dr.; VINTU, G., dr.; BEJENANU, G., dr.;  
RADULESCU, Alex., dr.; SABARESE, L., dr.; HURMUZACHE, G., prof.;  
TUDORANU, O., dr.; SEGAL, B., dr.; MARCULESCU, G., dr.; LUNGU, I.,  
dr.; LUNGU, E., dr.; ZAHARESCU, T., dr.; BALAS, P., coord.; BEJAN, V., dr.

Scarlatinal rheumatism. Med. int., Bucur. 9 no.1:67-70 Jan 57.

(RHEUMATIC FEVER, etiol. & pathogen.  
scarlet fever, incidence & prev.)  
(SCARLET FEVER, complications  
rheum. fever, incidence & prev.)

ZAHARESCU, V.

The presence in Rumania's fauna of a hymenopteron parasite of the cereal moth,  
Sito-troga cerealella. p. 249

LUSCRARI STIINTIFICE. (Institutul Agronomic "Profesor Ion Ionescu de la Brad,"  
Iasi) Bucuresti, Rumania.

Monthly list of East European Accessions (EWA) IC, Vol. 8, No. 8, Aug. 1959

Uncl.

26.2311

40513  
R/016/62/007/001/002/002  
1004/1204

AUTHOR: Yakab, I., Zaharesku, A. and Dumitresku, L.

TITLE: A method of measurement of the speed of propagation of shock waves

PERIODICAL: Revue de mecanique appliquee v. 7, no. 1, 1962. 173-183

TEXT: Described is a method of velocity measurement of waves propagating in a shock tube. The measurement is based on registration of the time interval between the moments of passing of the wave across two fixed marks 700 m apart. The instant of passage of the wave is detected by special capacity transducers with very low inertia. A special oscillographic chronograph was developed for measurement of the time interval. It employs a spiral time base and the measured time interval,  $\Delta t$ , is represented by an arc of the spiral given by  $\varphi = 2\pi f \Delta t$ , where  $f$  is the frequency (2000 cps in the present case) of the voltages which form the time base and  $\varphi$  is the central angle of the spiral arc. The probable accuracy of the method is 0.3%; the main sources of error are a) inaccuracy in the estimation of the spiral arc length, b) inequality of the amplitudes of the two voltages which form the spiral time base, c) deviation of the phase shift between these voltages from 90°, d) presence of harmonics in the time base voltages, e) dependence of the sensitivity of one pair of the deflecting plates upon the voltage impressed upon the other pair, and f) errors resulting from the modulation process of the voltages which form the spiral time base. There are 12 figures.

Card 1/1

I 11176-66 EMP(11)/T/ETC(m) WA/RU  
 ACC No: AP6004953 SOURCE CODE: RU/0027/65/010/001/0067/0077  
 AUTHOR: Pincovski, Eugen; Zaharia, Ana  
 ORG: Gheorghe Gheorghiu-Dej Polytechnical Institute, Bucharest (Institutul politehnic "Gheorghe Gheorghiu-Dej")  
 TITLE: Device for the study of the kinetics of solid-gas type heterogeneous processes  
 SOURCE: Studii si cercetari de metalurgie, v. 10, no. 1, 1965, 67-77  
 TOPIC TAGS: gas kinetics, electromeasuring device, physics laboratory instrument  
 ABSTRACT: The authors describe a device allowing the simultaneous and continuous registration of the kinetic curves showing the variation of yield and of reaction speed with time. The device consists of a transducer of electric conductivity for the registration of yield and a transducer of thermic conductivity for the registration of the reaction speed (differential curve). The device is relatively simple and can be used for serial determinations. Orig. art. has: 6 figures, 6 formulas, and 1 table. [JFK]  
 SUB CODE: 20, 09 / SUBM DATE: 07Dec64 / (CIG REF: 004 / OTH REF: 002

Card 1/1



23036

10.6300

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D237/D301

AUTHORS: Jakab, I., Zaharescu, A., and Dumitrescu, L.

TITLE: A method of measuring the propagation velocity of shock waves

PERIODICAL: Studii si cercetări de mecanică aplicată,  
no. 1, 1961, 195 - 205

TEXT: The article gives the result of investigations conducted by the Institutul de mecanică aplicată (IMA) "Traian Vuia" of the Academia P.P.R. ("Traian Vuia" Institute of Applied Mechanics of the Rumanian Academy) on a method of measuring the velocity of shock waves produced by the shock tube of the IMA, as well as on the development of the corresponding electronic instruments. The average velocity is measured by determining the time interval between the passage of the wave in front of two wave detectors, placed along the shock tube at a distance of 700 mm from each other.

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D237/D301

A method of measuring ...

For this purpose special wave detectors with a solid dielectric were developed, having a very high natural frequency and a low response time, ranging between 2 and 5  $\mu$ sec. The IMA shock tube may produce streams with  $M_2$  Mach numbers, varying between 0 and 5.3, which correspond to a propagation velocity of the  $M_2$  initial shock wave varying between 1 and 3.5. Since the distance between the two detectors is 700 mm, time intervals from 600 to 2,100 microsec. may be measured. The measuring is done by a specially developed electrono-cathodographic chronograph. The measuring circuit as shown in Fig. 1, consists of two wave detectors, an RC oscillator, an amplifier, a dephasing circuit, a reaction amplifier, two chains of amplifiers, an electronic relay, and a blocking circuit.

Fig. 1.

Legend: 1 and 1' wave detectors - 2, 3, 4, and 2', 3', 4' amplifier chains; - 5 electronic relay - 6 blocking circuit - 7 RC oscillator - 8 amplifier - 9 dephasing circuit - 10 modulation circuit.

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A method of measuring ...

Fig. 1 (cont'd)

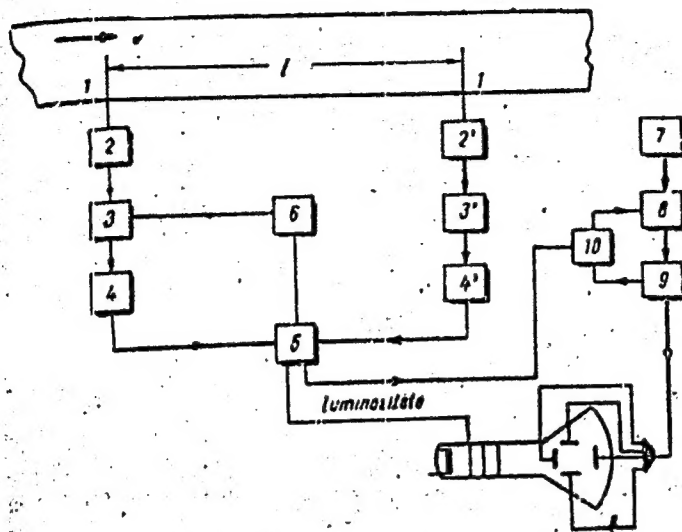


Fig. 1

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A method of measuring ...

The operation principle is described as follows: the RC oscillator, the amplifier and the dephasing circuit produce two sinusoidal voltages of the same frequency, dephased to  $90^\circ$ , which are applied to the pairs of the deflecting plates of the cathode tube. Thus, the electronic spot describes a circle on the screen. Before releasing the phenomenon in the shock tube, the intensity of the spot is very low, being below the visibility limit. The moment the shock wave passes in front of the wave detectors, two electric signals are produced which are amplified and processed by two chains of amplifiers which act on the electronic relay; the relay controls the lighting and the extinguishing of the cathode tube spot. The electronic relay also acts on the modulation circuit, which gradually reduces the amplitude of the deflection voltages. Thus the electronic spot does not move any more on a circle, but describes a luminous spiral arc, which is photographed. The time variation of the amplitudes is determined according to

$$\varphi = 2\pi f \Delta t,$$

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